REMARKS

Claims 5-15, 17, and 19-24 are pending in the present patent application. Claims 8-15, 17, and 19-24 are allowed. Claims 5-7 stand rejected. This application continues to include claims 5-15, 17, and 19-24.

Applicants thank the Examiner for allowing claims 8-15, 17, and 19-24.

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art (Figs. 1A-2B) in view of Wang, et al., U.S. Patent No. 6,209,993 B1. Applicants respectfully request reconsideration of the rejection of claim 5 in view of the following.

Wang, et al. is directed to a method for fabricating an ink-jet printhead chip that reduces a resistance when inks flow through ink slots and prevents the ink slots from clogging (col. 1, lines 25-28). Wang, et al. discloses a silicon substrate 100 having a first surface 10 (col. 2, lines 7-8). A groove 102 is formed in surface 10, and an ink slot 104 is formed at the bottom of groove 102 (col. 2, lines 8-21, Fig. 2). Surface 10 is for adhering to an ink cartridge, and includes an overflow groove 108 formed thereon (col. 2, lines 28-30, Fig. 2). During the adhesion process, redundant paste flows into overflow groove 108, and not into groove 102, so that ink slot 104 is not clogged (col. 2, lines 30-33).

Applicants believe that claim 5 patentably defines Applicants' invention over the cited references, Prior Art in view of Wang, et al., taken alone or in combination, for at least the reasons set forth below.

Claim 5 is directed to an ink jet printhead assembly. Claim 5 recites, in part, adhesive at least partially disposed within said at least one cavity, said adhesive adhering said backside of said heater chip to said substantially flat surface of said substrate. The Examiner acknowledges that "Prior Art fails to teach the heater chip having a cavity and adhesive at

least disposed within the at least one cavity." However, the Examiner asserts that Wang, et al. discloses at least one cavity (Fig. 2, element 108), and adhesive disposed within a groove (column 2, lines 28-33), and that it would have been obvious to one having ordinary skill in the art at the time Applicants' invention was made to modify the teaching of Prior Art to have the groove/cavity on the heater chip as taught by Wang, et al. The asserted motivation is to prevent clogging of the ink slot.

In contrast to adhesive at least partially disposed within the at least one cavity, the adhesive adhering the backside of the heater chip to the substantially flat surface of the substrate, as recited in claim 5, Wang, et al. merely discloses that during the adhesion process, redundant paste flows into overflow groove 108, and not into groove 102, so that ink slot 104 is not clogged (col. 2, lines 30-33).

However, Wang, et al. does not disclose, teach, or suggest that the "redundant" paste in overflow groove 108 is used to adhere anything. Nor does Wang, et al. disclose that overflow groove 108 *is configured* such that the "redundant" paste therein might adhere silicon substrate 100 to anything. Rather, the sole disclosed use of overflow groove 108 by Wang, et al. is that of preventing ink slot 104 from being clogged, wherein overflow groove 108 receives an overflow of unneeded "redundant" paste (col. 2, lines 30-33).

In contrast to Wang, et al., the *adhesive* of claim 5, in conjunction with the surface area in the cavity, *adheres the heater chip to the substrate*, thus providing for improved bond integrity. For example, the cavity "provides chip 40 with a greater surface area that can be bonded to over a given X distance on chip 40." (See Applicants' specification at page 5, lines 1-2). "By providing a greater surface area for bonding, trenches 64 improve the integrity of the bond lines in small areas, such as between multiple ink vias on a given chip." (See

Applicants' specification at page 5, lines 10-12). Accordingly, even if the Prior Art and Wang, et al. were combined, their combination would not yield Applicants' invention, as recited in claim 5.

Accordingly, for at least the reasons set forth above, Applicants respectfully submit that the cited references, Prior Art in view of Wang, et al., taken alone or in combination, do not disclose, teach, or suggest the subject matter of claim 5. Accordingly, claim 5 is believed allowable in its present form. Applicants thus respectfully request the Examiner to withdraw the rejection of claim 5.

Claims 6-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art (Figs. 1A-2B) in view of Wang, et al., as applied to claim 5, and further in view of Brandon, et al., U.S. Patent No. 5,751,324 B1. Applicants respectfully request reconsideration of the rejection of claims 6-7 in view of the following.

Claims 6 and 7 are believed allowable due to their dependence, directly or indirectly, on otherwise allowable base claim 5, since Brandon, et al. does not overcome the deficiencies of the Prior Art and Wang, et al. with respect to claim 5. Rather, Brandon, et al. discloses that grooves 46, 48 define an effective vent for venting gas produced during the heat curing cycle to the ambient environment without the formation of die bond channels in adhesive 26, (see Brandon, et al. col. 5, ll. 49-52), which would not render claim 5 obvious in combination with the Prior Art and Wang, et al. Accordingly, Applicants respectfully request that the rejection of claims 6 and 7 be withdrawn.

For the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the appended claims. The

appended claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (317) 894-0801.

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